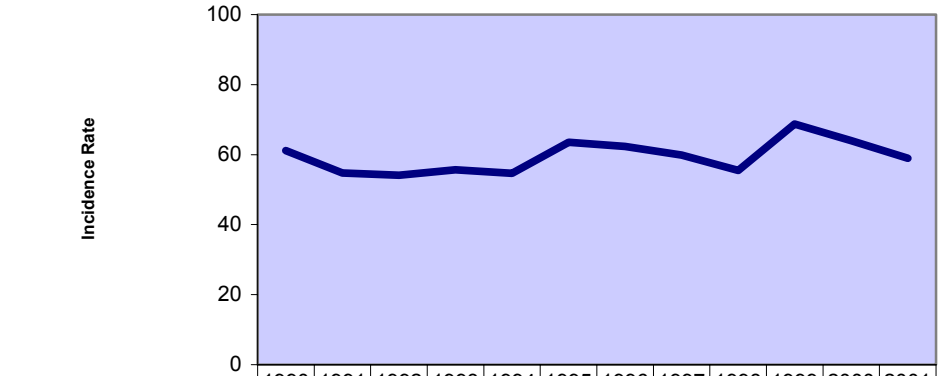
Lung Cancer

Cancer of the lung and bronchus is the second most common cancer among both men and women and is the leading cause of cancer death in both sexes. There were an estimated 164,100 new cases of lung cancer and an estimated 156,900 deaths from lung cancer in the United States in 2000. Among all cancer deaths in the State and the County, it has been the leading causes of death for many years. In 2001, it caused 119 deaths out of 1681 deaths in Lancaster County. Smoking is the single most well established attributable risk factor for lung cancer. Other risk factors include exposure to secondhand tobacco smoke, occupational exposure, and indoor and outdoor air pollution. The higher the number of cigarettes smoked per day the higher the risk of dying from lung cancer. However, cessation of smoking decreases the risk of having lung cancer.

Lung Cancer Incidence

Overall, lung cancer incidence rate in Lancaster County remained stable over the last twelve years (Figure 4). On average approximately 60 new cases were diagnosed every year for every 100,000 people.

Figure 4: Lung Cancer Incidence Rates
Lancaster County (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Age-Adjusted Rate	61	55	54	56	55	63	62	60	56	69	64	59

Rate per 100,000 population
Source: Lincoln-Lancaster County Health Department

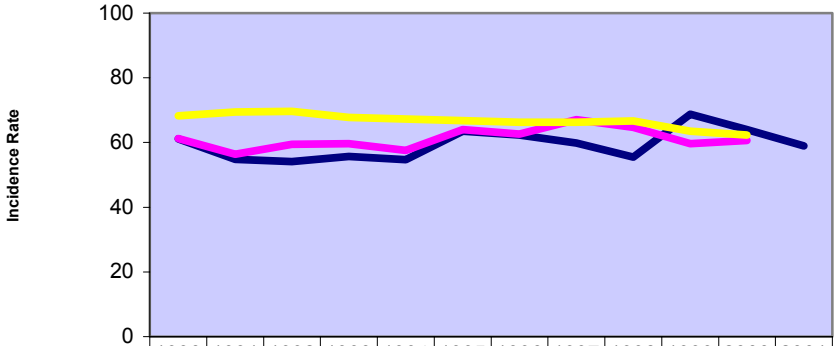
Figure 5 shows ten years comparative incidence rates among Lancaster County, the State of Nebraska and the Nation. The incidence of lung cancer in the State and in the County were somewhat similar but below the annual national incidence rate. The lung cancer incidence rate for men was higher than for women, however, it showed a gradual increase in rate for women and a simultaneous decline in rate for men (Figure 6).

Lung Cancer Deaths

Figure 7 shows death due to lung cancer in Lancaster County in comparison with the death rate of the State and the Nation. Similar to incidence rate, death due to lung cancer showed a stable trend over the years. Similarities in the number between the incidence and death rate reflects the poor prognosis of persons with lung cancer. Since men had a higher incidence rate, death rates were also higher among them compared to women (Figure 8).

Figure 5: Lung Cancer Incidence

Lancaster County, Nebraska & US (1990-2001)



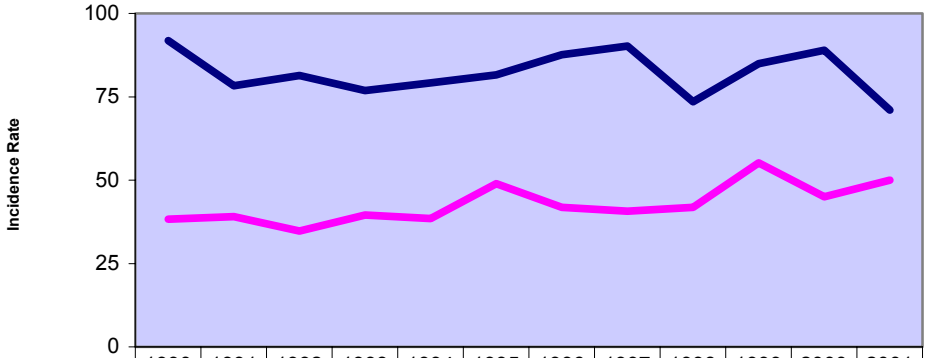
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Lancaster County	61	55	54	56	55	63	62	60	56	69	64	59
Nebraska	61	56	59	60	58	64	63	67	65	60	61	N/A
United States	68	69	70	68	67	67	66	66	67	64	62	N/A

Rate per 100,000 population Year *Age-adjusted rate*

Source: Lincoln-Lancaster County Health Department

Figure 6: Lung Cancer Incidence by Gender

Lancaster County (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Male	92	78	81	77	79	82	88	90	74	85	89	71
Female	38	39	35	40	38	49	42	41	42	55	45	50

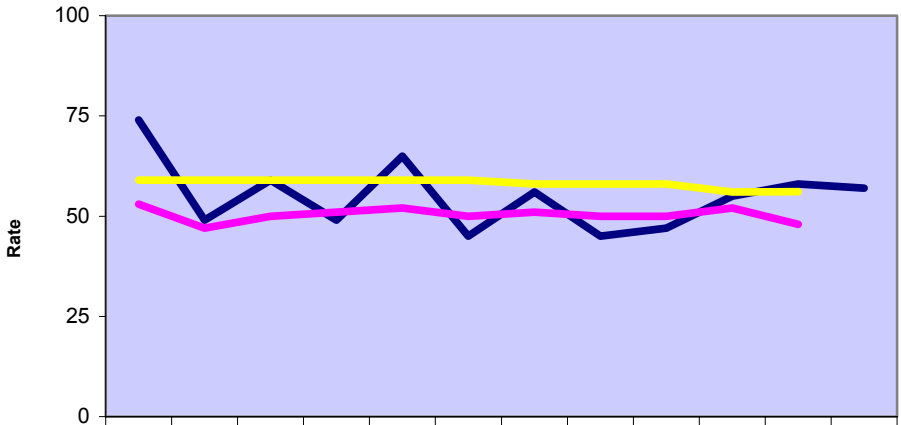
Rate per 100,000 population *Age-adjusted rate*

Year

Source: Lincoln-Lancaster County Health Department

Figure 7: Lung Cancer Deaths

Lancaster County,Nebraska & United States (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Lancaster County	74	49	59	49	65	45	56	45	47	55	58	57
Nebraska	53	47	50	51	52	50	51	50	50	52	48	N/A
United States	59	59	59	59	59	59	58	58	58	56	56	N/A

Rate per 100,000 population

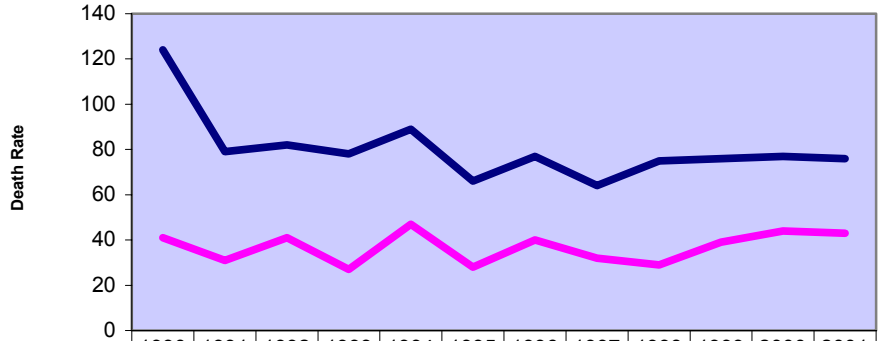
Year

Age adjusted rate

Source: Lincoln-Lancaster County Health Department

Figure 8: Lung Cancer Death by Gender

Lancaster County (1990-2001)



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Male	124	79	82	78	89	66	77	64	75	76	77	76
Female	41	31	41	27	47	28	40	32	29	39	44	43

Rate per 100,000 population

Year

Age adjusted rate

Source: Lincoln-Lancaster County Health Department

Public Health Implications:

It is estimated that approximately 30% of cancer deaths and 87% of lung cancer deaths are related to smoking causes. As no screening procedures are readily useable, only 15% of lung cancers are diagnosed when the disease is still localized.

Since smoking is the most important risk factor in the development of this disease, efforts to decrease the incidence of lung cancer focus on reducing the initiation of smoking and increasing cessation of those who use tobacco. The Tobacco Free Nebraska Program, funded by State Tobacco Settlement funds, is focused on the goals of keeping children from starting to use tobacco and protecting the public and employees from secondhand tobacco smoke. Within Lincoln and Lancaster County, this program emphasizes counter-marketing, surveillance, school and community tobacco education programs, tobacco cessation, enforcement, and smoke-free environments. Strategies also include working with community partners, policy makers and legislators to decrease the impact of smoking and the effects of environmental exposures to smoke on persons in Lancaster County. This highly successful effort is a Centers for Disease Control and Prevention (CDC) model program which contribute to a significantly decrease in smoking rates in adolescents and a substantial increase in the number of smoke free restaurants and worksites in Lancaster County.